



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/633,336	08/01/2003	Stephen F. Baumann	02-0475 [370028-00003]	4188

7590 09/03/2004

Eckert Seamans Cherin & Mellott, LLC
Alcoa Inc.
Alcoa Technical Center
100 Technical Drive
Alcoa Center, PA 15069-0001

EXAMINER

MORILLO, JANEL COMBS

ART UNIT PAPER NUMBER

1742

DATE MAILED: 09/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/633,336

Applicant(s)

BAUMANN ET AL.

Examiner

Janelle Combs-Morillo

Art Unit

1742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 August 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) 9-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 23-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 121103.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-8 and 23-28, drawn to aluminum alloy product, classified in class 148, subclass 437.
 - II. Claims 9-22, drawn to process for working and heat treating an aluminum alloy, classified in class 148, subclass 691.

The inventions are distinct, each from the other because of the following reasons:

Inventions II and I are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product can be made by a materially different process such as ingot casting and rolling.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

During a telephone conversation with Gary Topolosky on August 30, 2004 a provisional election was made with traverse to prosecute the invention of group I, claims 1-8 and 23-28. Affirmation of this election must be made by applicant in replying to this Office action. Claims 9-22 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-7, 23, 24, 26, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morris (US 3,989,548).

Morris teaches an Al-Fe alloy preferably comprising (in weight%): 1.7-2% Fe, 0.5-1% Si, 0.5-0.9% Mn, less than 0.3% Cu, and less than 0.3% Mg (column 9 lines 19-21), which overlaps or touches the boundary of the presently claimed alloying ranges. Morris does not teach the presence of In, Ti, or Zr, and therefore the alloy taught by Morris is held to have substantially zero of said elements.

Overlapping ranges have been held to be a prima facie case of obviousness, see MPEP § 2144.05. It would have been obvious to one of ordinary skill in the art to select any portion of the range, including the claimed range, from the broader range disclosed in the prior art, because the prior art finds that said composition in the entire disclosed range has a suitable utility.

Concerning independent claim 23, Morris does not teach that finstock for heat exchangers is made out of said alloy composition. However, it would have been obvious to one of ordinary skill in the art to have formed the alloy taught by Morris into thin sheet suitable for heat exchanger finstock, because Morris teaches said alloy can be rolled into very thin sheet 0.1-0.0004 inches (wherein 0.0004 inches = 10.2 μ m, column 7 lines 51-53), wherein said sheet exhibits good mechanical properties (column 1 lines 19-20) even when subjected to brazing (column 7 line 44-46).

Concerning dependent claims 2-7, 24, and 26, as stated above, Morris teaches an overlapping alloy composition.

Concerning instant claim 28, as stated above, Morris teaches that said alloy can be rolled into a very thin sheet with a thickness of 0.1-0.0004 inches (wherein 0.0004 inches = 10.2 μ m, column 7 lines 51-53), which overlaps the presently claimed thickness gauge.

4. Claims 1-8 and 23-28 rejected under 35 U.S.C. 103(a) as being unpatentable over Crona (US 4,802,935).

Crona teaches an Al-Fe aluminum alloy preferably comprises (in weight%): 1.1-1.8% Fe, 0.1-0.4% Si, 0.25-0.6% Mn, up to 0.3% Cu (column 2 lines 34-36), and up to 2.0% Zn (abstract), which overlaps or touches the boundary of the presently claimed alloying ranges (claims 1-8, 23-27). Crona does not teach the presence of In, Ti, or Zr, and therefore the alloy taught by Crona is held to have substantially zero of said elements.

Overlapping ranges have been held to be a prima facie case of obviousness, see MPEP § 2144.05. It would have been obvious to one of ordinary skill in the art to select any portion of the

Art Unit: 1742

range, including the claimed range, from the broader range disclosed in the prior art, because the prior art finds that said composition in the entire disclosed range has a suitable utility.

Concerning independent claim 23, Crona does not teach that finstock for heat exchangers is made out of said alloy composition. However, it would have been obvious to one of ordinary skill in the art to have formed the alloy taught by Crona into thin sheet suitable for heat exchanger finstock, because Crona teaches said alloy can be rolled into very thin sheet 0.03-0.6 mm (wherein 0.03 mm = 30 μ m, abstract), wherein said alloy sheet exhibits improved mechanical properties including high tensile and fatigue strengths (column 4 lines 58-60).

Concerning dependent claims 2-8, 24-27, as stated above, Crona teaches an overlapping alloy composition.

Concerning instant claim 28, as stated above, Crona teaches that said alloy can be rolled into a very thin sheet with a thickness of 0.03-0.6 mm (wherein 0.03 mm = 30 μ m, abstract), which overlaps the presently claimed thickness gauge.

5. Claims 1-4, 7, 23, 24, 26, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawahara et al (US 6,620,265).

Kawahara teaches an aluminum alloy fin material for brazing comprising (in weight%): 0.6-1.8% Mn, 1.2-2% Fe, 0.6-1.2% Si, 3% Zn or less, 0.3% Cu or less, 0.5% Mg or less, 0.15% Zr or less, 0.3% In or less, 0.15% Ti or less, balance aluminum (column 6 lines 11-20), which overlaps or touches the boundary of the presently claimed alloying ranges (claims 1-4, 7, 23, 24, and 26).

Overlapping ranges have been held to be a prima facie case of obviousness, see MPEP § 2144.05. It would have been obvious to one of ordinary skill in the art to select any portion of the range, including the claimed range, from the broader range disclosed in the prior art, because the prior art finds that said composition in the entire disclosed range has a suitable utility.

Concerning independent claim 23, Kawahara teaches said Al-Fe alloy is used as finstock (column 6 line 10).

Concerning dependent claims 2-4, 7, 24, and 26, as stated above, Kawahara teaches an overlapping alloy composition.

Concerning instant claim 28, Kawahara teaches that said alloy can be rolled into a very thin sheet with a thickness on the order of 0.06 mm (wherein 0.06 mm = 60 μ m, see Table 2), which falls within the presently claimed thickness gauge.


Conclusion


6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janelle Combs-Morillo whose telephone number is (571) 272-1240. The examiner can normally be reached on 8:30 am- 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1742

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JCM 
August 30, 2004


GEORGE WYSZOMIERSKI
PRIMARY EXAMINER